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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/596,250

06/06/2006

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25570 7590 02/25/2008
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EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT

PAPER NUMBER

2836

NOTIFICATION DATE

DELIVERY MODE

02/25/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/596,250 | Applicant(s) DURTH ET AL. | |
| | Examiner DHARTI H. PATEL | Art Unit 2836 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/06/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 12-22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Boy, Patent No. 4,769,736.

With respect to claims 1 and 13, Boy discloses an overvoltage protection means, comprising: a first electrode [Fig. 3; 22; col. 4 lines 64-65], a second electrode [Fig. 3; 23; col. 4 lines 64-65], a breakdown spark gap [Fig. 3; 27; 28; col. 4 lines 63-66] having a discharge space formed between the electrodes [Fig. 3; between the electrodes 22 and 23; col. 4 lines 63-66], an arc forming between the electrodes within the discharge space when the breakdown spark gap is ignited [col. 1 lines 35-47], and a housing [col. 5 lines 59-60] which holds the electrodes [Fig. 3; 22, 23], wherein the discharge space [Fig. 3; 27, 28] is configured in a manner which runs at least one of partially transversely and partially opposite a direction of an electrical field of a prevailing line voltage so that a distance to be overcome by the arc between the two electrodes has a component that is transverse relative said direction of the electrical field as disclosed in Fig. 3.

With respect to claims 2 and 14, Boy discloses an overvoltage protection means wherein the discharge space has at least three regions, a first region of which is connected to the first electrode [Fig. 3; the first electrode 22 is connected to the discharge gap 28 at the lower left side of the electrode 22 as shown], a second region of which is connected to

the second electrode [Fig. 3; the second electrode 23 is connected to the discharge gap 28 at the upper left side of the electrode 23] and a third region of which is connected between the first region and the second region [Fig. 3; subsidiary discharge gap 27 is connected between the first region and the second region].

With respect to claims 3 and 15, Boy discloses that the third region runs essentially perpendicularly to the direction of the electrical field of the prevailing line voltage [Fig. 3; the third region of discharge path 27 is arranged perpendicular to the electric field].

With respect to claims 4 and 16, Boy discloses that the third region runs partially obliquely to the direction of the electric field of the prevailing line voltage [Fig. 3; the third region 27 runs partially obliquely, which is sloping or joining something at an angle that is not a right angle].

With respect to claims 5 and 17, Boy discloses the third region runs partially opposite the direction of the electric field of the prevailing line voltage [Fig. 3; when the third region 27 runs upward, it runs partially opposite the direction of the electric field].

With respect to claims 6 and 18, Boy discloses that a side of the first electrode [Fig. 3; 22] facing the second electrode [Fig. 3; 23] and a side of the second electrode facing the first electrode are partially covered with one of an electrically insulating material and a material of high electrical resistance, an uncovered region of the first electrode and an uncovered region of the second electrode being arranged transversely offset relative to one another [col. 4 lines 63 - col. 5 lines 8; col. 5 lines].

With respect to claims 7 and 19, Boy discloses that a side of the first electrode [Fig. 3; 22; col. 4 lines 64-65] facing the second electrode [Fig. 3; 23; col. 4 lines 64-65] and a

side of the second electrode facing the first electrode are partially covered with an electrically insulating material [Fig. 1; insulating ring 3, Fig. 3; col. 3 line 65], an uncovered region of the first electrode and an uncovered region of the second electrode being arranged offset to one another, wherein a side of the insulating material facing the second electrode and a side of the insulating material facing the first electrode are at least partially covered with a material of high electrical resistance [Fig. 3; the sides of the first electrode and the second electrode are covered with the insulating ring 3], the first electrode being electrically conductively connected to the material of high electrical resistance on the side of the insulating material facing the second electrode in an area remote from the uncovered region of the first electrode and the second electrode being electrically conductively connected to the material of high electrical resistance side of the insulating material facing the first electrode in an area remote from the uncovered region of the second electrode [col. 5 lines 59-61].

With respect to claims 8 and 20, Boy further comprises an active ignition aid [col. 1 lines 35-36; col. 5 lines 61-62].

With respect to claims 9 and 21, Boy discloses that the active ignition aid comprises a series connection of a voltage switching device [Fig. 3; surge arrester] and an ignition element connected to the two electrodes [Fig. 3; electrodes 22 and 23], the sparkover voltage of the voltage switching device being below the sparkover voltage of the breakdown spark gap so that a diversion current first flowing via the ignition element when the voltage switching device responds [col. 1 lines 35-47].

With respect to claims 10 and 22, Boy discloses that the voltage switching device is one of a varistor, suppressor diode and a gas-filled voltage arrester [col. 1 lines 5-6].

With respect to claims 12 and 24, Boy discloses that the housing [col. 5 lines 59-60] is a metal pressure housing and has an inner insulation housing [Fig. 2; 3; insulating ring]..

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boy, Patent No. 4,769,736, in view of Durth et al., Patent No. 7,324,319.

With respect to claim 23, Boy discloses an ignition element, but does not disclose that the ignition element comprises one of a conductive plastic, a metal material and a conductive ceramic and is in mechanical contact with the second electrode.

Durth discloses a surge protection device including a first and a second electrode. Durth discloses that the ignition element comprises one of a conductive plastic [col. 1 lines 51-65], a metal material and a conductive ceramic and is in mechanical contact with the second electrode.

Boy and Durth are analogous overvoltage/surge protection devices with first and second electrodes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Durth's plastic ignition element, into Boy's surge arrester, for the benefit of plastic having an excellent insulating property.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DHARTI H. PATEL whose telephone number is (571)272-8659. The examiner can normally be reached on 7:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

/Dharti H. Patel/
GAU 2836
02/16/2008